



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

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NEW YORK, NY 10007-1866

**OCT 20 2016**

Mr. Enrique Castro  
Project Coordinator  
Tierra Solutions, Inc.  
Two Tower Center Boulevard, 10<sup>th</sup> Floor  
East Brunswick, New Jersey 08816

Re: Administrative Settlement Agreement and Order on Consent for Combined Sewer  
Overflow/Storm Water Outfall (CSO-SWO) Investigation, CERCLA Docket No. 02-2011-  
2016

Dear Mr. Castro:

This letter is to address the obligations of Occidental Chemical Corporation (Occidental) under the above-referenced Administrative Settlement Agreement and Order on Consent (AOC) for CSO-SWO Investigation (CERCLA Docket No. 02-2011-2016). As explained below, no further activity is necessary under the AOC.

Tierra Solutions, Inc. (Tierra), on behalf of Occidental, has performed Phase I of the CSO-SWO Investigation, as described in the Quality Assurance Project Plan, Revision 3, dated September 2013. Based on the information collected during Phase I and taking into account the level of effort required to complete Phase I, as well as the analyses by EPA to support selection of a remedy for the lower 8.3 miles of the Lower Passaic River, EPA has determined that the second phase of work under the CSO-SWO Investigation AOC need not proceed.

EPA reviewed the CSO-SWO Phase I Evaluation and Recommendation Report (April 2016), Data Quality Usability and Assessment Report (March 2016), Total TCDD Verification Memorandum (March 2016) and associated analytical results, submitted by Tierra, and determined that the data collected during Phase I of the CSO-SWO Investigation were generally consistent with data collected by EPA in 2007-2008 at five CSO locations, as part of the lower 8.3-mile Focused Feasibility Study (FFS). The mean 2,3,7,8-TCDD concentration measured during the FFS was

approximately 4.1 ppt, while those measured during Phase I were below the detection limit of 0.5-1 ppt. The mean total PCB concentration measured during the FFS was approximately 360 ppb, while those measured during Phase I were approximately 176-347 ppb. The mean total DDx concentration measured during the FFS was approximately 95 ppb, while the various components of total DDx measured during Phase I were generally non-detect. EPA made these comparisons using the Phase I high solids mass method results.

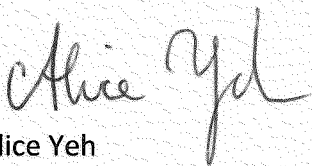
In March 2016, EPA issued a ROD for the lower 8.3 miles of the Lower Passaic River, part of the Diamond Alkali Superfund Site. In support of the ROD, EPA investigated potential sources of contaminants of concern (COCs) to the Lower Passaic River, including atmospheric deposition, groundwater, industrial point sources, the Upper Passaic River (above Dundee Dam), Newark Bay, major tributaries, CSOs and SWOs. Using an Empirical Mass Balance Model, a mechanistic model of contaminant fate and transport, and other tools, EPA analyzed data collected from 2005 through 2013 characterizing those sources, and concluded that the contaminated sediments that are already present on the river bottom in the lower 8.3 miles and that are resuspended and then resettle as a result of natural processes are, by a large margin, the biggest component of recently deposited sediment in the Lower Passaic River. CSOs and SWOs are minor contributors of COCs (0% to 2%) to the recently deposited sediments (sediments deposited on the sediment bed within approximately six months before sample collection, as defined in the ROD), since they are minor contributors of sediment particles to which COCs are bound compared to other sources. EPA used the mechanistic model to determine that even after construction of the selected remedy for the lower 8.3 miles has been completed, CSOs and SWOs will not prevent the selected remedy from achieving protectiveness. However, EPA does expect contributions from CSOs and SWOs to be appropriately addressed under Clean Water Act legal authorities.

The results of the Phase I sampling, described above, are consistent with EPA's conclusions about the relatively minor current contribution of sediment particles and COCs from the inflow from CSOs and SWOs. The Phase I work provided a very useful opportunity to evaluate CSO sampling protocols. One important lesson from Phase I has been that the sampling protocol involving use of a continuous flow centrifuge staged in a trailer proved excessively cumbersome to implement in a viable time-frame. EPA will take this into account in the context of the CSO-SWO sampling that will be needed as part of the Newark Bay Study Area remedial investigation.

Based on the above, in accordance with Paragraphs 57c of the AOC, EPA is now directing Occidental that no further tasks, activities or deliverables need be performed, effectively terminating the CSO-SWO Investigation. Our next step under the AOC will be to issue a Notice of Completion pursuant to Paragraph 117.

We appreciate the cooperation of Occidental, and Tierra on Occidental's behalf, in conducting Phase I of the CSO-SWO Investigation. Please let me know if you have any questions at 212-637-4427.

Sincerely yours,

A handwritten signature in black ink that reads "Alice Yeh". The signature is fluid and cursive, with the first name "Alice" and last name "Yeh" clearly distinguishable.

Alice Yeh  
Remedial Project Manager  
Emergency and Remedial Response Division

cc: J. Somoano, Glenn Springs Holdings/Occidental Chemical Corporation

